MODELING THE COMPETENCE ORIENTED EDUCATIONAL PROCESS

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Keywords: competence oriented approach, learning curves, team work, optimal educational management problem, optimal learning path.

The article concerns solving the optimal educational management problem by moving to competence oriented education using iterative and innovative learning theory using mathematic modeling of team work.

Contemporary trends of higher education development are linked with educational system modernization in the direction of rising training quality of specialists who are able successfully solving innovative problems and providing business steadiness amid the financial crisis. The success of this direction directly depends on moving of higher school to competence oriented educational model.

Within the given approach the educational process should provide both traditional "learning" characterized by knowledge accumulation and achieving the certain abilities and skills level, and achieving a qualitative educational effect liked with development abilities to solve urgent innovative problems.

Switching to such model makes up a base of a new competence oriented educational paradigm.

The problem of finding appropriate mechanisms and educational process models based on implementation of modern innovative methods and technologies.

We consider one of the approaches to solve this problem, based on interaction learning theory using mathematic modeling of team work.

Simulating competence oriented learning process we imagine educational process (*EP*) which consists of two parts: learning (*L*) and getting a competence level (*CL*), or

$$EP = L + CL.$$

We describe an educational process within the interactive learning notions. According to this approach learning process is an evolution monotone process. Qualitative nature of interactive learning may be described as learning curves.

The current level of leaning $R(t)$ as a result of realization experiences complexes may be described with the following formula:

$$R(t) = \sum_{i=1}^{m} [r_i^1 + (r_i^0 - r_i^1)\, e^{-\mu kt} + \Delta R^i(t)],$$

где $i = 1, 2, \ldots m$.

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